Mahi Soni

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Education

National Institute of Technology Srinagar *2021-2025*
Bachelor of Technology in Electronics and Communication Engineering
- GPA: 7.052/10

Aklank Public School *2018-2020*
Intermediate in Science

Skills

Programming Languages: Python, C, C++, SQL
Machine Learning & AI: FastAPI, TensorFlow, PyTorch,OpenCV, NumPy, Pandas, NLP (NLTK)
Analytics & Visualization: Power BI (DAX, KPIs, Dashboards), MS Excel
Core CS Fundamentals: Data Structures & Algorithms, OOP, DBMS, Operating Systems
Tools & Platforms: MATLAB, Google Colab, Git, Hugging Face, Kaggle, Docker, Kubernetes
Soft Skills: Problem-Solving, Effective Communication, Adaptability, Quick Learning, Leadership, Teamwork, Time Management

Projects & Experience

Machine Learning Intern — Indian Institute of Science, Bengaluru 2024
- **Project:** RT-MRI Video Frame Analysis During Speech Production
- Designed and implemented SegNet-based segmentation to detect Air-Tissue Boundaries (ATB) in RT-MRI upper airway images with high accuracy.
- Developed a MATLAB for manual annotation, producing precise ground truth to enhance segmentation reliability.
- Automated data preprocessing and analysis pipelines using Python (NumPy, OpenCV, scikit-learn), significantly reducing manual effort.

Sales & Customer Analytics Dashboard (SQL + Power BI)(GitHub) 2025
- Built an interactive Power BI dashboard using a Kaggle Superstore dataset to track sales, profit, discount, and quantity trends.
- Performed data cleaning, aggregation, and transformations using SQL for accurate analysis.
- Designed KPIs, bar/line charts, scatter plots, and slicers to enable quick insights into top-performing products, regions, and customer segments.
- Enabled data-driven decision-making by identifying trends, high-margin products, and discount impacts on profit.

Sentiment Analysis on Social Media Comments (GitHub) 2024–2025
- **Technologies:** Python, Scikit-learn, TensorFlow, Hugging Face, OpenCV, NumPy
- Developed a tool to classify 70,000+ YouTube comments as Positive, Negative, or Neutral.
- Preprocessed data with text cleaning, stop-word removal, tokenization, and emoji mapping for NLP model training.
- Built and evaluated Logistic Regression, Random Forest, Bidirectional LSTM (BiLSTM), and Hybrid BERT+BiLSTM models; hybrid model improved performance by 6%.

Empathetic Code Reviewer (Python + FastAPI) (GitHub) 2025
- Built a tool to turn harsh code reviews into supportive, constructive feedback.
- Used Regex for variable cleanup and FastAPI to serve results via REST APIs.

Extracurricular Activities

TEDx NIT Srinagar 2024
- Coordinated a team of 50 members to organize a successful TEDx event with 10 speakers.
- Managed speaker selection and logistics, ensuring a seamless event experience.

Techvaganza Fest – Photography & Social Media Team 2024
- Captured event photos and videos for Techvaganza Fest.
- Created and managed social media content to engage the NIT Srinagar community.